



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/580,776	05/26/2006	Guo Liang Yang	7843P007	7128

7590 02/21/2008
Blakely Sokoloff
Taylor & Zafman
7th Floor
12400 Wilshire Boulevard
Los Angeles, CA 90025-1026

EXAMINER

VO, CECILE H

ART UNIT	PAPER NUMBER
----------	--------------

2169

MAIL DATE	DELIVERY MODE
-----------	---------------

02/21/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/580,776

Applicant(s)

YANG ET AL.

Examiner

CECILE VO

Art Unit

2169

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-37 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 May 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. This is a non-final Office Action in response to the present US application number 10/580,776, filed on 05/26/2006, which is a national stage entry of PCT/SG04/00382 International Filing Date: 11/24/2004, which claims foreign priority of Singapore Application No. 200306928-3, filed on November 27, 2003.
2. Claims 1-37 are presented for examination, with claims 1 and 21 being independent.

Priority

3. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Specification

4. The abstract of the disclosure is objected to because it does not include a brief narrative of the disclosure. Correction is required. See MPEP § 608.01(b).
5. Applicant is reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an

improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

Where applicable, the abstract should include the following:

- (1) if a machine or apparatus, its organization and operation;
- (2) if an article, its method of making;
- (3) if a chemical compound, its identity and use;
- (4) if a mixture, its ingredients;
- (5) if a process, the steps.

Extensive mechanical and design details of apparatus should not be given.

Claim Objections

6. Claims 2-20 are objected to because of the following informalities: the preamble "A method" should be changed to --The method--.
7. Claims 22-34 are objected to because of the following informalities: the preamble "Apparatus" should be changed to --The apparatus--.

8. Claim 18 is objected to because of the following informalities: A period should be put to the end of the claim.

9. Claims 35-36 are objected to because of the following informalities: Claims 35-36 are method claim and depend on apparatus claim 33.

Appropriate correction is required.

10. Claims 19 and 35 recite the claimed feature of "*an additional thumbnail image may be generated*". The language "*may be*" renders the claims vague and indefinite.

11. It is unclear if Applicant intends for claim 37 to be an independent or dependent claim. Examiner suggests Applicant should transition claim 11 into independent format or either reword claim 11 into a dependent claim format.

Claim Rejections - 35 USC § 101

12. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

13. Claims 21-34 and 37 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 21-34 are directed to an apparatus comprising software per se. Software per se is not one of the four categories of invention. Software per se is not a series of

steps or acts and thus is not a process. Software per se is not a physical article or object and as such is not a machine or manufacture. Software per se is not a combination of substances and thus, is not a composition of matter. Therefore, claims 21-34 are non-statutory.

Claim 37 is directed to a manufacturer. However, the claim terminology "computer readable medium" has not been provided, thus the phrase computer-readable medium is intended to transmit media such as signals, and carrier waves. Since the transmission media is not a tangible, physical article or object to constitute a manufacture and it is not a machine, process of composition of matter. Therefore, claim 37 is non-statutory.

Claim Rejections - 35 USC § 102

14. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

15. Claims 1-37 are rejected under 35 U.S.C. 102(e) as being anticipated by Maier et al. (hereinafter referred to as Maier), US Publication Number 2005/0027570 A1.

Regarding claim 1, Maier discloses a method for retrieving medical images from various sources and in different formats, to enable the creation of teaching files and research datasets, for the building of a personal medical image library (see abstract), the method comprising:

- (a) retrieving a plurality of medical images from various sources (e.g. Images and associated data may be requested using any suitable query, §0022, lines 3-4. Wherein, processes involve the collection and management of image data in disparate image data protocols and from different sources, §0005, lines 1-3);
- (b) storing the plurality of medical images in a database (e.g. the system may store image and other data using at least one database, §0022, lines 1-2);
- (c) generating a database record for the teaching files and research datasets (e.g. library component (as *database record*) may comprise one or more server, and a plurality of database. Wherein, database(s) may include a database for native images, which are stored in association with an identifier for the image subject. These identifiers may be used to determine access rights to an image or group of images, §0047, lines 1-5 and lines 9-11);
- (d) generating the teaching files and research datasets file (e.g. website, §0015);
- (e) saving the teaching files and research datasets into the database (e.g. expedite the addition of a suitable profile to the profile database, §0046, lines 11-12) ; and
- (f) generating at least one index of the teaching files and research datasets (e.g. all of the images are associated with the subject identifiers listed on the web page, §0061,

Art Unit: 2169

lines 7-8).

Regarding claim 2, Maier discloses a method further including a searching mechanism for searching the teaching files and research datasets (§0051, lines 1-4 and 8-15)

Regarding claim 3, Maier further discloses, wherein the medical images are from at least one discipline selected from the group consisting of radiology, nuclear medicine, dermatology, pathology, ophthalmology, cardiology, neurology, endoscopy, angiography, biomedicine, ECG, EEG, and EMG (§0042, lines 9-12).

Regarding claim 4, Maier further discloses, wherein the method is in accordance with MIRC schema (e.g. designated website, §0025, lines 1-7).

Regarding claim 5, Maier discloses a method further including anonymizing patient sensitive information, the patient sensitive information being able to be revealed to a generator of the teaching files and research datasets (e.g. a password distributed from the library component or other system computer may be used to designate access to all, or to a designated subset, of images in the library that pertain to a designated subject, §0047, lines 11-15).

Regarding claim 6, Maier further discloses, wherein the patient sensitive information is not revealed publicly (§0053, lines 4-21).

Regarding claim 7, Maier further discloses, wherein the anonymization process includes the replacing of each item of the sensitive information with an anonymization code (§0053, lines 4-21).

Regarding claim 8, Maier further discloses, wherein the anonymization code includes a prefix, a randomly generated number and a type (§0054, lines 9-13).

Regarding claim 9, Maier further discloses, wherein the prefix is a short string of characters representing the generator of the sensitive information; and the type represents nature of the sensitive information (§0054, lines 9-13).

Regarding claim 10, Maier further discloses, wherein a check is first performed to determine if the item of sensitive information has previously been anonymized and the anonymization code previously generated; and, if yes, retrieving and using the previously generated anonymization code (§0053, lines 1-Regards,

Regarding claim 11, Maier further discloses, wherein the sensitive information includes one or more items selected from the group consisting of: patient's name, patient ID, other patient's names, other patient IDs, patient's birth name, patient's

address, patient's telephone numbers, patient's mother's birth name, region of residence, country of residence, military rank, branch of service, patient comments, additional patient history, referring physician's name, referring physician's address, referring physician's telephone numbers, and all other person names (§0047, lines 3-8).

Regarding claim 12, Maier further discloses, wherein, in step (c), ACR codes are entered as a result of system prompts (e.g. authentication code, §0025, lines 1-7) .

Regarding claim 13, Maier further discloses, wherein the ACR codes are used for the at least one index of the teaching files (§0025, lines 1-7).

Regarding claim 14, Maier further discloses, wherein indexing is by at least one selected from the group consisting of: title, abstract, keywords, authors, affiliations, contacts, patient information, radiological codes, image format, image compression status, image modality, anatomic location, and ACR codes (e.g. all of the images are associated with the subject identifiers listed on the web page, §0061, lines 7-8).

Regarding claim 15, Maier further discloses, wherein, for internal searching, patient sensitive information is revealed, and for external searching patient sensitive information is anonymized (§0053, lines 7-21).

Regarding claim 16, Maier further discloses, wherein after each medical image is retrieved in step (a) it can be viewed before being stored (§0053, lines 18-21).

Regarding claim 17, Maier further discloses, wherein all medical images are kept in their original format once retrieved (§0049, lines 3-8).

Regarding claim 18, Maier further discloses A method as claimed in claim 17, wherein the formats include at least one selected from the group consisting of: AVW, HDR/IMG (Analyze format version 8.0 and 7.5), BMP (Windows Bitmap format), DICOM (Digital Imaging and Communications in Medicine), GIF, JPEG, JPEG 2000, PNG, PNM, PPG, RGB, RGBA, SGI, TIFF, AVW, HDR/IMG (Analyze format version 8.0 and 7.5), Animated GIF, MIRA, Multi-sliced TIFF, MOV, AVI, MP3, RM, and Waveform for ECG, EEG, EMG (§0049, lines 13-21).

Regarding claim 19, Maier further discloses, wherein for two-dimensional medical images, two additional JPEG images are generated for ease of browsing using a web browser, and for other image formats, an additional thumbnail image may be generated (e.g. Fig. 4, §0061).

Regarding claim 20, Maier further discloses, wherein the two additional JPEG images are of the same size as thumbnail images (see Fig. 4 -5).

Regarding claim 21, Maier discloses apparatus for retrieving medical images from various sources and in various formats for creating at least one teaching file and research dataset; the apparatus including a database, an image retrieval interface able to retrieve medical images from various sources and in different formats, an MIRC server, a server, and a graphic user interface for operation on a user's machine (e.g. system 100, Fig. 1 illustrates a system topography useful in the practice of a system and method for the collection and management of image data in disparate data protocols and from different sources).

Regarding claim 22, Maier further discloses, wherein the database is a relational database for storage of all required information, including: database tables; database indexes; database scripts; and pointers to the medical images, teaching files and research datasets (§0047, lines 3-9).

Regarding claim 23, Maier further discloses, wherein the server serves requests received from a user via the graphic user interface on a user's machine; the graphic user interface being for providing access functions and file editing functions (e.g. terminals 111, 113 and 115 in Fig. 1).

Regarding claim 24, Maier further discloses, wherein the image server includes at least one selected from the group consisting of: a two dimensional image loader, a

three dimensional image loader, a multi-media loader and a telemetry loader (§0042, lines 1-8).

Regarding claim 25, Maier further discloses, wherein the two-dimensional image loader is for retrieving two-dimensional still images (§0042, lines 1-8).

Regarding claim 26, Maier further discloses, wherein the three-dimensional image loader is for retrieving three-dimensional still images (§0042, lines 1-8).

Regarding claim 27, Maier further discloses, wherein the multi-media loader is for retrieving multi-media files (§0043, line 1-3).

Regarding claim 28, Maier further discloses, wherein the telemetry loader is for retrieving telemetry data (§0043, lines 1-3).

Regarding claim 29, Maier further discloses, wherein the graphic user interface includes a PMIL client as a user interface able to run in a web browser or as a stand alone application on a user's machine, and provides MRIC editing functions (e.g. Patient browser 111 in Fig. 1).

Regarding claim 30, Maier further discloses, wherein the server includes an MIRC storage for providing an MIRC file storage service for the database and for the user's machine (e.g. web server 141, §0034, lines 7-9).

Regarding claim 31, Maier further discloses, wherein the MIRC server further includes an MIRC query to provide queries as defined by the MIRC scheme (§0011, lines 1-5).

Regarding claim 32, Maier further discloses, wherein the at least one teaching file is in accordance with a Medical Imaging Resource Centre standard (§0025, lines 1-7).

Regarding claim 33, Maier further discloses, wherein the formats include at least one selected from the group consisting of: AVW, HDR/IMG (Analyze format: version 8.0 and 7.5), BMP (Windows Bitmap format), DICOM (Digital Imaging and Communications in Medicine), GIF, JPEG, JPEG 2000, PNG, PNM, PPG, RGB, RGBA, SGI, TIFF, AVW, HDR/IMG (Analyze format: version 8.0 and 7.5), Animated GIF, MIRA, Muli-sliced TIFF, MOV, AVI, MP3, RM, and Waveform for ECG, EEG, EMG (§0049, lines 13-Regards,

Regarding claim 34, Maier discloses, wherein all medical images are kept in their original format once retrieved (§0049, lines 1-5).

Regarding claim 35, Maier discloses, wherein for two-dimensional medical images, two additional JPEG images are generated for ease of browsing using a web browser, and for other image formats, an additional thumbnail image may be generated (e.g. Fig. 4, §0061).

Regarding claim 36, Maier further discloses, wherein the two additional JPEG images are of the same size as thumbnail images (e.g. images in Fig. 5).

Regarding claim 37, Maier discloses computer useable medium comprising a computer program code that is configured to cause a processor to execute one or more functions to perform the method of claim 1 (§0036-§0038).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CECILE VO whose telephone number is (571)270-3031. The examiner can normally be reached on Mon - Thu (9AM - 5:00PM EST).


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammad Ali can be reached on 571-272-4105. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

February 14, 2008

/Cecile Vo/
Examiner
Art Unit 2169

/H. Q. P./
Primary Examiner, Art Unit 2168


MOHAMMAD ALI
SUPERVISORY PATENT EXAMINER